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NUMBER 83

THE FRUIT CROP

To the fruit-growers the season of 1890 will long bring remembrance of disappointments and disaster. For fifty years, old fruit-growers say, no such general failure of fruit crop has been known in the northern and middle States. The failure is not confined to any single fruit, but seems to be general to all except, perhaps, grapes. Apples never were such a failure in Michigan. Peaches will be very light—in some sections total failure. So with plums and pears. The small fruits, which early in the season promised so well, have been very disappointing. Strawberries were very light and the season short. Raspberries were fair in some sections, but poor in others owing to frost at and through. Blackberries are now in season, and the small receipts point conclusively to a light yield. Much of the receipts are of poor quality—dried up with the intense heat and lack of moisture. As it is in Michigan so it is in all the fruit-growing States. In Delaware and New Jersey it is estimated the fruit-growers will lose \$3,000,000, as compared with ordinary seasons, while the loss of freight to railroads, handlers, etc., will be a large addition to this amount. In western New York the failure is as complete as in our own State. As for apples it is as yet said there are none. In Illinois, Indiana, and Ohio are no better this season than their sister States. Apples of any description will sell at a high price.

supplied with fruit than the middle and western States. In fact the failure is general with the single exception of California. Here, it is said, the crops were especially good this season, both in quantity and qual-

The N. Y. *Daily Bulletin* of a late date publishes some reports regarding the outlook at various points, from which we take the following extracts:

"Efforts have been made in fruit circles during the past month, and particularly during the last week, to create the impression that the fruit crops, as far as the United States are concerned, have been so damaged to be absolute failures. It has been commented that the peach crop in the Atlantic coast peach orchards would be a very small one this season, but there have until the period mentioned above been few reports at the California crops were injured or damaged.

"A call was made on Saturday on leading receivers of fruit, and it was emphatically pointed that there had been any trouble with California fruit. The advice in fact was to rule to the effect that, instead of showing a surplus of California fruit, it was abundant, and that the quality was also very good and well calculated to stand the long

"As far as the Eastern peach crops are concerned, the most serious loss will be in New Jersey and Delaware, which States are the heavy producers of the 1,000,000 boxes of peaches every season, when conditions are normal, and which fruit nets the growers some \$1,000,000; while the peach crops of other States, it is estimated by one of the leading fruit dealers, net the growers not \$2,000,000 per year. The loss to the Eastern fruit-raisers alone, it is therefore estimated, is \$3,000,000, to say nothing of the other incidental losses, such as railroad freight and the like. The Eastern fruit raisers are going to be becoming more and more a necessity, and were it not for the peach crops in California, it is, it is urged, evident that the Eastern and Middle States would experience a real famine of the most serious kind. California, therefore, is very rapidly increasing its fruit production, and this year, according to Mr. E. L. Goodsell, shipments out of the State amounted to

[illegible]

"Green plums and prunes usually come in boxes of 18 pounds net, and each piece of fruit is wrapped in paper. The quality and size of the fruit is much higher than that of the fruit that can be commanded by similar fruit from other localities.

"The usual scare about the Hudson River grape crop has made its appearance. This year the time it takes the vines to ripen is about the same as last year. The vineyarders assert that some claim that their whole crop is injured while others say that only half their grapes are touched. As there are many vineyards which are not affected at all, and as the crop is enormous, the dealers estimate that at least one half crop will be obtained. This will furnish plenty of grapes for everybody, as the acreage is enormous, and a full crop would gain the market.

"The reports of a fall crop are published to affect market prices in the expectation that the peach crop of Ohio and the Lake

David Woodward, of Clinton, Leanwee Co., is a happy man. He will have a peach crop of about 1,000 bushels, which will bring him a tidy sum.

Horticultural.

The Apple, the Universal Fruit.

G. H. Lafleur, of Allegan, read a paper on the best methods of growing apples at the West Michigan Fruit-Growers' June meeting at Shelby, in which he said:

From the most remote period of which we have any record, the apple has been referred to both in prose and song.

While the apple may not possess all the virtues attributed to it by the ancient mythologists, it does possess medicinal properties hardly equalled by any other fruit.

The apple has been the one universal fruit, following closely in the footsteps of man wherever he has migrated and founded a home and society within the limits of the temperate climate, bringing health and wealth to thousands, and gladdening the hearts of many of the early settlers of this and other States, where men and women have ventured to make themselves and their children a home and a country. May its productivity, its usefulness, and its good qualities never grow less.

The settlers of this continent brought with them from the old world, seeds of the apple, which were planted and grew to trees of bearing age; this was followed by bringing from Europe buds and scions of choice varieties, from which, by gradual improvement, has come the giant list named in the catalogue of America's unrivaled and best fruit—the apple. The sun shines not upon a time or a land on the globe better adapted to the apple than is found on the American continent. Michigan orchards are unrivaled, and Michigan apples when honestly packed and properly handled are world-renowned for their beauty and good quality.

There are two questions to be settled in the selection of varieties. The first one is to select the kinds needed for family use, commencing with the earliest to ripen, continuing in succession to the winter varieties. This list should not be selected for production alone but for quality and adaptability to the wants of the family. No better investment can be made than the time and money spent in securing the family orchard. It seems to stamp the home with a show of respectability and comfort which should be more fully realized. The second question is, what are the best sorts to plant for market? This is also an important one. A mistake here will bring great disappointment and financial loss. I may here add a word of caution. Don't set too many kinds for a commercial orchard. Three or four varieties as a rule are better than more. No one list can be made to suit all localities. A list suitable for any one point in the State might not be suitable for some other part. Different varieties of apple are affected by soil, climate, and location to such an extent that actual test can alone decide the adaptability of varieties to any particular locality. I know of no better way to settle the question than by personal inspection of the orchards in the town and country where you intend to set your orchard. Any grower will readily tell you which variety does best with him. By this means one can learn the relative value of the different kinds grown in that section. The best and most reliable information can be obtained by joining some horticultural society and helping to maintain it in your own country. The best fruit-growers are to be found at such meetings, ready to give their experience upon the points on which you need information. This will require a little time and cost some money, but you get in return more than the cost, the satisfaction of feeling that you are up with the times and well posted in these matters.

In selecting a site for the orchard, high, rolling ground, well drained, is preferable. This point of drainage should never be overlooked. Wet feet will produce heart disease in the apple tree as certainly as the malaria of the swamp produces ague in man; only it may take a little longer time. Always remember that the better the conditions connected with the apple orchard the greater the profits. This rule will work well all through, from the planting of the trees to the packing of the fruit for market. The ground should be thoroughly pulverized and cultivated during the first season, as this keeps the ground moist, and crops of some sort may be grown upon the ground during the first six weeks; in fact the ground in the orchard should be well cultivated until the orchard comes well into bearing, after which the ground may be seeded to grass and pastured with any stock that will not injure the trees, plowing or breaking up the soil once in three or four years; and after thorough cultivation it may be seeded down again and pastured.

Trees should not be set less than two rods apart. I set my trees forty feet and would prefer to increase the distance rather than make it less. The tree should be set about two inches deeper than it stood in the nursery row. The hole should be considerably larger than the roots of the tree require. Set the tree in its place, throw in some mellow dirt, then with the hand straighten the roots out evenly, then raise part of the fine roots above this dirt and firm the dirt around the roots below them, then throw in more dirt and firm with the foot, covering all of the fine roots, then fill the hole a little more than level, leveling the dirt close on top. Set the trees leaning toward the point from which the prevailing winds come. The top should be cut back until spring, just about the time buds should begin to swell. The time to commence the formation of the top is the first season they are planted in the orchard. Fix in your mind a model and then endeavor to make the trees conform to that model so far as is possible. If you attend to the pruning in time, every limb can be cut from the tree that is necessary, with a pocket pruning-knife.

The apple orchard will respond to good treatment and good feed as readily as any other farm crop. The trees should be washed once in each year with lye or strong soap; apply while hot if possible, using an old broom. This prevents the borer from injuring the trees.

If possible to prevent, never allow the trees to lean to the east or northeast. Trees leaning in that direction have the trunk exposed to the rays of the sun, and the alternate thawing and freezing in winter injures the sap vessels, on that side, and the borer puts in his work, and the whole south side of the tree is ruined; decay and death follow in time.

I think fruit-growers have not pursued the

wisest course in the past in the manner of gathering, packing, and selling their apples. The common practice has been to go into the orchard and gather all the winter apples at about the same time, pack them, and sell all together in the fall or at best in early winter. By observation you will learn that some varieties ripen and drop from the trees much earlier in the season than others. Such apples should be picked early before they drop. Some varieties will only keep until winter, such as King and Hubbardston. Such apples should be sold in the fall while the better keepers can be held later and the long keepers should be reserved for the spring market. A much better price will be realized for apples sold in this way. When you find that a tree is not the variety that you desire it to be, top graft it at once. Every fruit-grower should learn the art of grafting and do his own work.

If the directions given in this paper are followed, and the trees which you plant are fresh and sound, there will be but small loss and a valuable orchard will be your reward. The tent caterpillar and codling moth and every insect enemy should be guarded against and destroyed. The best method for doing this can be learned by attending such meetings as this. Here you will learn the best varieties to grow, the best methods for packing and shipping, in fact you will learn to become the best kind of fruit-grower and a good fellow.

Fall vs. Spring Planting.

From the purchasers' standpoint, does it pay to buy fruit trees in the fall? Are there any advantages gained by purchasing in the fall equivalent to the disadvantage of laying out of your money for six months for an article that cannot be made any use of till the spring? If there are none that can be shown, that of itself is a sufficient objection to fall purchasing. Then, what are the advantages claimed and set forth by the advocates of fall purchasing? First, if the purchaser be a farmer, as is the case in the majority of instances, he is told that by securing his trees in the fall he will have them on hand in the spring soon as the season opens and can get them planted and out of the way before his other work demands his attention, and that by an early planting they will get the full benefit of the spring rains to give them a fine setting, and as a result an early start. On the other hand, if he does not get them set out early he is told he can leave them lying in their winter bed till the season is well advanced, and they will then lose no time, as they will have started to grow and, the weather being warm, will rush right ahead soon as planted out. Both of these arguments are fallacious and deceptive, as I think can be shown alike from the standpoint of common sense and from actual experience.

In the autumn season nature prepares the tree for the approaching winter. First evaporation is suspended, then the flow of sap from the roots ceases, the leaves separate and fall off, the bark contracts and tightens about the tree, the pores of the outer covering close up and the tree is ready to resist the penetrating cold blasts of the winter season. If the tree be dug up for fall delivery the process of preparation is very different from the nurseryman before evaporation has ceased, or any preparation has been made to resist the winter's cold. The tree is sent out in this condition; it is buried in the earth beneath the frost for the winter; it absorbs from the soil all the moisture that it can contain, and if, at the first approach of spring, it is taken out of its winter bed in this state and exposed to the cold piercing winds and keen night frosts it is going to have a severe struggle for life. To subject a young tree to this treatment is like taking a child right from the bath tub, and, whilst the pores of the system are all open, exposing it to a cold and chilling atmosphere. The child could not stand such treatment without receiving a shock to its system; no more can the young tree. If it be a pear or an apricot tree it will almost certainly die; if a plum it may live; if an apple tree it will most likely live, but it will show evidences of its harsh treatment through life, in what is known as black heart or other kindred defects.

On the other hand, if the tree be allowed to lie in its winter bed till the season is well advanced and the days become warm and sunny, its fate will be none the less precarious. Before being taken out the buds will have formed and swelled, ready to bursting open; planted out in the warm sunshine they will immediately burst forth, and in less than two weeks you may have a growth of over an inch in length. But you will not really get any more growth that season; for, having exhausted the vitality in the tree itself with no corresponding growth at the root to sustain a continued top growth, the latter must stop and the tree becomes stunted; and, in spite of every effort on your part to revive its growth it will remain in that condition throughout the season, and the winter will come upon it before it has sufficiently established itself to withstand the frost and storm, and it will die the following spring. The cause is not far to seek. The tree, as before mentioned, had become flushed with sap from absorption; when set out in the warm sunshine this absorption was stimulated into abnormal growth, and as there was yet no warmth in the ground to promote a growth at the root, the growth at the top must stop when the abnormal vitality of the trunk is exhausted and there is no preparation made at the root to sustain and continue it. To insure a continued and healthy growth in a tree that nature must continue at the root. This is nature's method, and any interference at variance with her natural operations is certain to be followed by undesirable results, and any tree that has not established itself by firm root growth during the first season after transplanting, in only an exceptional case will it come safely through the winter to do so the second season.

As to, then, from any monetary consideration, fall deliveries are, in my opinion, decidedly against the purchasers' interest. The very high percentage of mortality, if I may so term it, among pear and plum trees in the County of Perth, I attribute to fall deliveries, and a large percentage of the unhealthiness in both young and older apple orchards, I attribute to the same cause. For example, four years ago a neighboring farmer purchased a dozen apple trees, which were delivered to him in good order by myself. After keeping them "heeled in" all winter, he planted them out early in the spring as re-

commended. A day or two after a severe storm of sleet set in from the southwest, followed by a hard frost. Every one of those trees lived, but from the start they presented a very unhealthy appearance. On examining them in the month of August following I found on the southwest side on many of them what I supposed to be frost blights. The bark in spots had become quite dry and hard, and sunken away from the living part of the tree. These spots are now nearly or quite overgrown but they will ever remain diseased spots in the trunks of the trees, affecting them to a greater or less extent throughout their whole system. In my own personal experience I have planted, during the past years, fourteen plum and pear trees received in the fall, of that number two only are living. During the same time I have planted thirty-three received in the spring, out of which only four have died, and I was strongly suspicious that these four were fall dug when they came to hand. As a class, I have a special regard for nurserymen, and the business in which they are engaged has always had a peculiar attraction for me; yet I have still to meet the nurseryman who can instruct nature in her methods, or improve upon them, and the tree left undisturbed in the soil in the fall, prepared by nature in her own way for the approaching winter, and dug up in the spring for transplanting, is, all things considered, the most profitable tree to buy, and the only safe tree to have anything to do with.—T. H. Race, in Canadian Horticulturist.

Cut Back for Black Knot.

In a part of his grounds somewhat neglected a nurseryman had left a few plum trees. They were high as John's head, but had been twice as high the year before, but branches having been cut back early the previous spring to dispose of the unsightly black-knot (Slowly growing morbus). But instead of getting rid of it, now, in June, nearly every cut limb-stub has a great and growing knot at its very top, and often half-covering the old cut end of the branch. This sight of the struggling and dying trees brings up the thought that the fungus is spread through the branches far below where the excrescence is seen. The threads, which are very minute, may extend a foot or more from the knot, possibly through the whole tree when a small one and badly infected. Another point is the evidence here given of the perennial nature of the knot; it lives on, spreading from season to season, until the tree is ruined. The experience shows the importance of cutting far below the knot in order to remove the infection. Some trees should be rooted out entirely.—Byron D. Halsted, in N. Y. Tribune.

The Olive in California.

S. S. Boynton, of Oroville, Cal., writes to the Rural Home relative to the famous olive orchard of Ellwood Cooper, in Santa Barbara County. The following description of the orchard, whose success has induced the planting of large acreages to olives, is given: In 1871 Mr. Cooper purchased 1,700 acres on the shores of the Pacific, fourteen miles north of the city of Santa Barbara. The place is now reached by a railroad built to his land and this at present is the terminus. The tract is mostly low rolling hills with a limited amount of flat land. The soil is mostly a sandy loam yet with some rich black adobe in spots. The location is a favorable one as it is free from severe winds and enjoys immunity from frosts. Of the 1,700 acres, 800 are devoted to pasture land and upon this he keeps a dairy of 60 cows—all Jerseys—and 350 head of stock cattle. The products of the dairy are shipped direct to the San Francisco market. Five hundred acres are devoted to grain raising and 450 are planted to fruit trees. Of the 450, 75 acres are planted to olives, 1,500 being young trees and 6,000 being in bearing. There are 8,000 English walnut trees, 4,500 Japanese persimmon trees, 10,000 almond trees and 400 of other varieties. The 6,000 olive trees will this year yield 25,000 quart bottles of oil that sell readily at \$1.25 per bottle. This will return \$31,000 for the trees in bearing or a little over \$500 an acre. As none of the trees are yet in full bearing and will not be for ten years to come, it will be seen that olive growing is one of the most profitable occupations that the horticulturist can engage in.

Mr. Cooper found some trouble on account of the winds and planted an immense number of Eucalyptus trees as wind breaks. He now has 200,000 of these trees growing and uses many of them for wood. The importance of olive culture is hardly realized in our own country. Italy with less area than California has more than two million acres set to these trees. At the usual number—100 to the acre—this would be more than two hundred million trees in that country. In Europe the berries are knocked from the limbs by means of long poles; this is apt to bruise some of them and thus cause the oil to be rancid. Mr. Cooper overbites this by rigging platforms upon wagons and carrying ladders so as to pick the fruit by hand. His trees, like the olive in all other lands, give a heavy crop one year and a light one the following. From his olives he makes two grades of oil, the first is worth \$5.00 a gallon while the second grade sells at \$4.00 a gallon. Of the second grade only a limited amount is made. The pickled olives bring from seventy-five cents to one dollar and a quarter a gallon but he believes it far more profitable to sell the oil than to put up the olives at three paces. His young trees come into bearing in four years old and the best ones return 700 gallons of berries per year. His best year old trees will give thirty gallons and his best eight year old trees have returned as high as forty gallons each.

The berries are gathered in November and December and the leaves and imperfect berries are winnowed by means of a mill. When gathered they are placed so as to wither a little, thus allowing the water to evaporate and then put in a machine for crushing them. This machine is simple in work, being nothing more than a large rock worked by a long lever pulled around by a horse. It grinds up the olives, meat, skin and seeds to a pulp, and this pulp is then put in strong bags which are placed under a press. A strong pressure is placed upon them by means of a screw and this increased from time to time till all the oil has been squeezed out. So particular is Mr. Cooper in obtaining oil that he will not allow a man who uses tobacco to work with the olives nor a man who tends to the horses or works in the stable.

This is to avoid any possible taint that the oil might receive. Everything in connection with the olive mill is scrubbed and washed daily with hot water and not a speck of dirt is found anywhere inside or outside of the building. If any oil is spilled it is at once washed up and the spot scoured so as to prevent any taint from it. The strongest point aimed at is to make the purest oil that can be produced and to attain this no pains are spared.

The tree, as we have said, blossoms in April or May and the berry is ripe at the end of seven months. Mr. Cooper thinks the olive the most productive tree that grows. This tree has great advantages over the orange as it will stand ten or twelve degrees more of cold. It promises to become one of the leading fruit trees of the State as it will thrive on land too dry for even the grape and on soil too rocky for any other fruit. It grows rapidly in the hot climate of the interior valleys, and trees 21 years old have measured six feet in circumference.

Horticultural Items.

A California fruit-grower calculates that he has about \$11,000 worth of prunes this year.

T. B. Terry tells in the Country Gentleman that this season, from less than half an acre of land, he sold \$337 worth of strawberries, and not less than \$50 worth were used in the family during the season.

The Mason Democrat says W. H. Overholt has so far this season shipped 1,300 pounds of dried raspberries to the Chicago market, realizing 38 cents per pound, the fruit originating from two to three cents per pound above the market price.

From W. H. Locke's market garden at Belmont, Mass., fourteen tons of rhubarb, or pie plant were sold this year. More of this plant is grown at this garden than at any other place on the continent. Over an acre of glass is devoted to the crop.

The N. E. Farmer says B. M. Smith, of Beverly, has received a prize for his new strawberry, the Beverly, from the Massachusetts Horticultural Society. In 1883 Mr. Smith had only one plant and this year he harvested eight and a half bushels of the Beverly.

The South Haven Messenger says three citizens of that town recently consumed at a single sitting the entire season's crop of one thousand peach trees. They are fond of peaches, hence had no difficulty in "getting away" with the single specimen that constituted the crop.

Mr. T. Laxton, whom the Horticulturist (Eng.) Times says is one of England's greatest living authorities on the culture of the strawberry, says America is considerably in advance of England in the production of this fruit. Mr. Laxton wants to cross the best varieties of each country and see what the result will be.

The Benton Harbor Palladium tells of a strawberry grower who shipped 21 cases of berries that netted him 27 cents after paying expenses. The Palladium says that after this experience he allowed many fine berries to go to waste, and adds that many thousands of quarts were allowed to spoil on the vines for this reason.

The Black Tartarian is the variety of the cherry which is most popular in the cherry orchards of Western New York. Its large, handsome fruit is not easily affected by the weather or transportation, and its flavor compares well with that of any other variety. It is a free bearer, and the fruit hangs in clusters which are easily detached by the picker.

ANN ARBOR peach-growers expect a crop of about 12,000 bushels, and as there is a scarcity of that fruit figure on large prices. W. W. Nichols and C. G. Clark have refused an all-round offer of \$3.50 for their crop, and think they will get from \$4 to \$4.50 per bushel. Growers feel it is their turn this year, and are not slow in asking all the market will bear.

The Kalamazoo Gazette of August 8th, says: "On the 30th day of last October Mr. J. A. Beebe packed a quantity of apples in tin dried sand. Last evening he presented the editor of the Gazette with a basket of this fruit that was as perfect as the day it was put up at a cost of \$5. Since that time it has been my family medicine, and sickness has become a stranger to our household. I believe it to be the best medicine on earth."—F. McNulty, Hackman, 29 Summer St., Lowell, Mass.

Of the newer strawberries which appeared in the Boston market, the N. E. Farmer says: "The Windsor Chief, a late berry raised in Dighton and Somerset, introduced last year, had a good sale. They are deep in color and stand shipping well. The May King seems well liked for a new berry. The Sharpless had a less sale than usual. There seemed to be a greater demand for fruit of medium size, which all fruit growers will recognize as sensible and a decided move in the right direction."

The strawberry loves abundance of moisture between the flowering and ripening period. Unless it has plenty, from some source or the other, the fruit is sure to be small, and the crop, as a whole, of light weight. Seeing that such is the case with every variety of strawberry in cultivation, it would be folly for a man whose soil was of a light, dry nature, and who had no copious and sure supply of water for garden use, to depend upon this crop to the extent of planting a very large proportion of his ground with it.

Apianian.

Comb or Extracted Honey.

H. D. Cutting, of Clinton, answered the question of whether it is best to produce comb and extracted honey in the same apiary, to the satisfaction of the Ohio State Beekeepers' Association, as follows:

In answering this question we must always take the matter of location into consideration. In many sections the product is dark in color the entire season, and in this case it is best to work for extracted honey only; or as is often the case, the honey comes in so slowly that the bees will not get it in good presentable shape for market and again it is best to use the extractor.

If you are in a good locality where white clover abundance, followed by basswood, and the bees bring in large quantities of honey every day during the flow, then it is best to work for comb honey provided you are adapted to run an apiary exclusively for comb honey. I will herewith venture the assertion that not more than one honey pro-

ducer in ten is qualified to produce and market comb honey successfully. Now this may seem strange to many of you yet it is a fact. Go where you will and you find slovenly honey producers, persons not adapted to the handling of comb honey.

When you find a man that has the assistance of a woman, then you will find honey in good shape for market. Almost invariably when you find a woman at the head of an apiary, there you will find comb honey in fine condition, as she seems to be peculiarly adapted to the business.

If you go into an apiary during extracting season and find a person with honey on his hands, plenty on his clothes, nearly as much on the floor as in the can; all implements daubed with honey, the extractor handle along with the rest, with no pan of water or cloth handy to clean up any honey out of place, then and there you will find a person not adapted to handle comb honey. If he should be so fortunate as to secure a crop of honey he would spoil it all with his manner of handling. And this is not all, his honey would spoil the market for some more favored honey producer.

When honey is taken to market with pro-polis on every section, with the producer's trade mark in the shape of dirty finger marks on every package, then the dealer will see at a glance that it is not in proper shape, and give from two to three cents per pound under the regular market price. And when the neat and tasty producers bring their product to market they are met with, "I have just bought seventy-five pounds of Mr. So-and-so for so much and you are expected to take the same."

If the persons that have no taste to have things look nice would confine themselves to extracted honey, then the market for comb honey would be much better in many localities. If the persons working for extracted honey would confine themselves to that product they could produce honey at less cost per pound than where comb and extracted is produced in the same apiary. Each producer has its own system, and they do not work well together.

It is best to adopt one regular system and work to that as circumstances will allow, bringing all things to that system. Have an objective point and work to it if you wish to succeed as a honey producer, and always remember that locality and circumstances must govern in all cases if you wish to succeed.

Gleanings begs beekeepers not to send samples of foul brood or diseased bees through the mails, as so doing adds to the danger of spreading the disease. Foul brood is easily "diagnosed" by the description in the bee literature of the period and there is no sense in increasing its territory.

Mrs. Harrison, the well known apiarist, has found a new use for spiders. She tells the Prairie Farmer that whereas she formerly made war upon them she now catches and carries them to a hive containing uncoupled comb and puts them in. Mr. Langstroth says moths will not enter where spiders abound. They trap the moths and worms.

FOR DYSPESIA, Ayer's Sarsaparilla

Is an effective remedy, as numerous testimonials conclusively prove. "For two years I was a constant sufferer from dyspepsia and liver complaint. I doctored a long time and the medicines prescribed, in nearly every case, only aggravated the disease. An apothecary advised me to use Ayer's Sarsaparilla. I did so, and was cured at a cost of \$5. Since that time it has been my family medicine, and sickness has become a stranger to our household. I believe it to be the best medicine on earth."—F. McNulty, Hackman, 29 Summer St., Lowell, Mass.

FOR DEBILITY, Ayer's Sarsaparilla

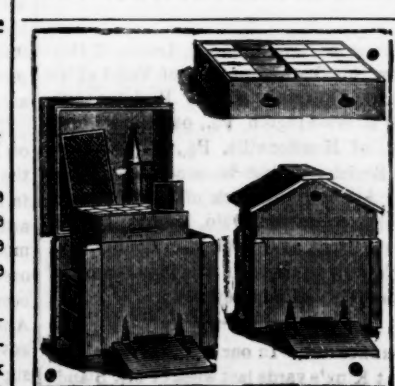
Is a certain cure, when the complaint originates in impoverished blood. "I was a great sufferer from a low condition of the blood and general debility, becoming finally, so reduced that I was unfit for work. Nothing that I did for the complaint helped me so much as Ayer's Sarsaparilla, a few bottles of which restored me to health and strength. I take every opportunity to recommend this medicine in similar cases."—C. Evick, 14 E. Main St., Chillicothe, Ohio.

FOR ERUPTIONS, Ayer's Sarsaparilla

And all disorders originating in impurity of the blood, such as boils, carbuncles, pimples, blotches, salt-rheum, scald-head, scrofulous sores, and the like, take only

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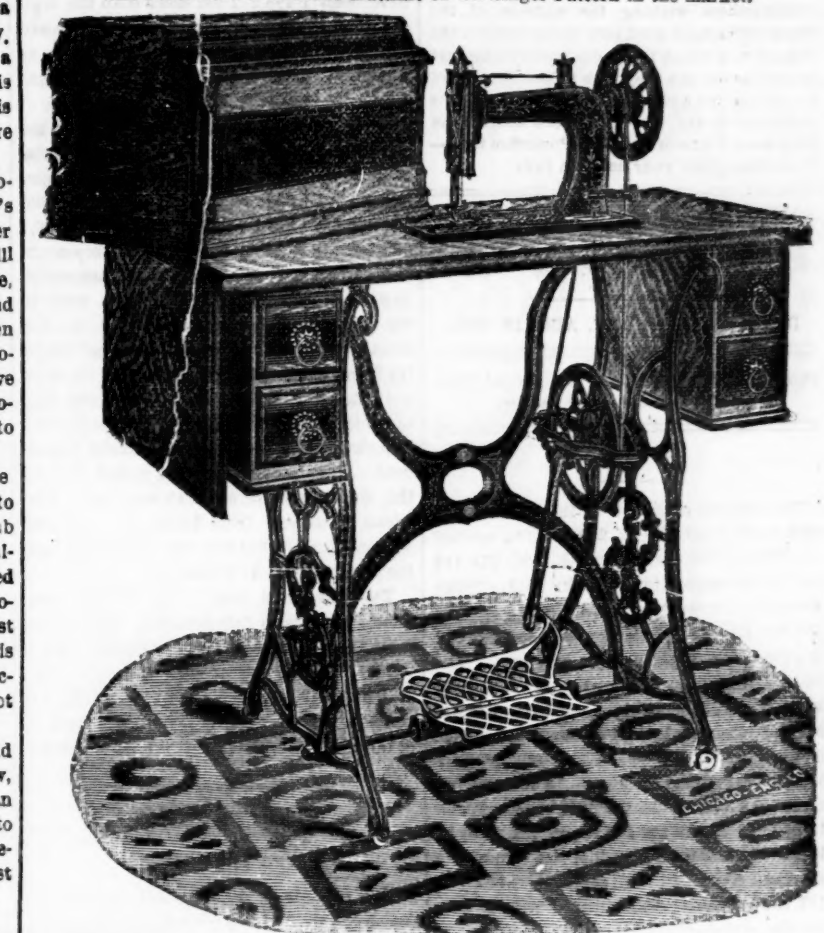
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Poetry.

THE SHEPHERD AND HIS LAMBS.

Unto the margin of a flowing river,
The Eastern Shepherd leads his timid sheep;
He calls them on, but they stand still and shiver,
To them the stream seems wide and swift and deep.

He calls them on, but they in fear are standing;
He calls them on, but they stand still and shiver;
They heed not now the voice of his command-
ing, they only hear the river's fearful flow.

Then from the side of one protecting mother,
A lamb the Shepherd takes unto his breast;
And then he gently bends and takes another,
And in his arms the two lambs lie, at rest.

They lie at rest, and as he close enfolds them,
He hears them safely o'er the river wide;
The little lambs know well the arm that holds them,
They nestle warmly and are satisfied.

Then the fond mothers with maternal longing,
Look on beyond that river's fearful flow;
They can but follow, and behind them throng-
ing, their feeble comrades are in haste to go.

Drawn by a love stronger than all shrinking,
Their lambs they follow o'er the flowing tide;
They heed not now the swimming or the sinking,
They brave the stream, and reach the further side.

And while their tender Shepherd kindly feeds them,
They give him longer upon what hath been;
He gives them back their lambs, and then he leads them,
By the still waters and the pastures green.

So shall it be with you, O weeping mother,
Whom lamb the Lord hath taken from your sight;
The life hath done it; He, and not another;
Your lamb lies in His arms, clasped close and tight.

Across the stream your little one is taken,
That you may fear no more the quick, dark flow;
But that with steadfast heart and faith un-
shaken, you may be ready after it to go.

This is the tender Shepherd's loving pleasure,
To bless at once the little one and you;
He knows that when with Him is your best treasure,
There, fixed forever, will your heart be too.

THERE SHINES A LIGHT.

There shines a light for you and me,
On a lone hill and a lone sea;
The light-house of our hope and love—
It twinkles like the stars above.

And when the waters seem so deep,
And round our bank its billows sweep—
Look to that beacon post and bright;
Spread out your sails, steer for the light.

When we at last have reached that isle,
That serene and quiet life we see;
The light-house of our hope and love—
The haven of immortal love—
When our frail bark lies on the shore
And all the gloomy past is o'er;
How sweet that beam for you and me,
Shines from the light far out at sea.

—Written by Eliza Follen, in Godley's Lady's Book.

Miscellaneous.

THE BUSTED HOPES.

Among the veteran miners of the Gold Leaf district none could lay claim to longer residence therein than little Andy Cobb, the original discoverer and present half-owner of the "Busted Hopes." In forty-eight hours from the origin of the Gold Leaf boom little Andy was in the gulch, coming along with the first installment of fortune seekers from Deadwood, with his camp kit packed on the only broncho in the party, chartered for the trip jointly by Andy and the Nussbaum Brothers, the Jew clothiers from Cheyenne.

"We located side an' side—the two Nussbaums an' me," Cobb used to relate to every "underfoot" that he could beguile into listening. "Levi Nussbaum struck it rich in the 'Three Pies.' Sunk a prospect hole 'bout big enough to bury a Dutchman, an' sold to a Boston syndicate for fifty thousand in less'n a week. His brother, old Moses, had the same kind of luck. The 'All Wool' is the richest claim in the gulch to this day, an' it has bin five years since Nussbaum let it slide for enough money to buy all the second hand clothes in America."

"And how about your claim?" the listener would inquire.

"Mine? Oh, I've got it yet. I changed its name after the first year, all the same. It was the 'Eldorado' first, but now I call it the 'Busted Hopes.' It's a nice claim if it's a poor one—handy to the shanty, an' wood an' water convenient. There's plenty of good ore in the 'Busted Hopes.' If we only had a little capital to invest in developin' it the lad an' I could windless out the metal faster'n forty mince could handle it."

Ed Brundage was the "lad" to whom Cobb had referred. He was a new man in the gulch, comparatively speaking, his citizenship merely dating back some eighteen months or thereabouts. No one seemed to know anything, in regard to the "lad's" past history, and in justice to the other miners I must admit that obtrusive curiosity was a falling ailment unknown among them. A stranger in their midst was expected to furnish some sort of a name, for the convenience of parties who might wish to address him, but further than this he might, at pleasure, refuse to proceed. Thus it chanced that Brundage, making his debut in the gulch when half of the miners were down with mountain fever, had quietly settled down as a permanent resident of the place, without offering or requesting any confidence whatever; and aside from the fact that he was a "Yankee," and possessed of some previous experience as a miner, the amateur Pinkertons of Gold Leaf had failed to elicit any "points" worthy of mention.

Little Andy Cobb had been one of the first to suffer from the fever, and for four long weeks, stretched on the not over soft hay mattress in the solitary apartment that contained all his worldly effects, excepting the mining claim just mentioned, lay in daily anticipation of that grim visitor who calls alike upon rich and poor. Nurses were few in Gold Leaf Gulch, and of the lucky citizens who chanced to keep on foot while their neighbors were fighting single handed with death the majority were too busily looking after their own interests to care for

the well being of others. So, accustomed to being left alone and uncared for, Andy Cobb was agreeably surprised upon awakening from one of his feverish naps to find that the dingy little room had been "slicked up" to an unprecedented degree; the miniature table that held his medicine vials vastly beautified in appearance by the addition of a snowy cloth, improvised by splitting a "piled shirt" down the back, while the willing hands that had voluntarily worked this transformation had gone farther in their good work, knocked a beard from the wall to admit more air, spread a dampened cloth on the invalid's fever burnt brow, and was now energetically toiling with abundant soap and water to provide the proprietor of the "Busted Hopes" with a much needed change of clean clothing.

Too sick to feel much concern in any earthly affairs, however remarkable, poor Andy had merely watched for a time with languid interest the inexplicable movements of this strange visitant, and then gave way once more to his overpowering drowsiness, waking later in the day with a clearer brain to find his guardian angel still at his side.

"If it hadn't been for you 'twould have been 'good-by, Andy,'" he gratefully remarked, when, in a fair way toward recovery, he was enjoying the luxury of a smoke under the shadow of the great mountain pines. "I tell ye what it is, lad, if the 'Busted Hopes' ever makes my fortune half of it is yours. And"—as if by inspiration—"when you have binowed in all that come around an' I'll split up what's left."

Ed Brundage responded to this burst of generosity with a quiet laugh. "Say no more about it, old man," said he. "It wasn't altogether an act of kindness on my part. At all events I wasn't wholly disinterested. You see, I wanted to stand in with you and buy a share in your claim."

Little Andy stared at him in open eyed wonder.

"To buy into the 'Busted Hopes'?"

"Certainly!"

"But—thunder! Why, man, it's the daddumdest, poorest pieces of mining property in the hills!"

"Not quite," smiled Brundage. "There is a perpetual grubstake in it if a man will work—eh?"

"There always has been," Cobb was forced to admit; "but then, you see, I'm a hoss on the hunt, and always rustle for my meat in the hills."

"Just to my hand," acquiesced Ed. "If there is anything I enjoy it is good hunting. So, then, please consider me a partner in the 'Exploded Anticipations' from this day on. I'll give you your own price—when I dig it out of the mine—and if the claim never pans out, why we will starve together, that's all."

And so it came about that the unprofitable mine was worked with redoubled vigor, and as industry usually brings a commensurate reward the finances of the firm slowly improved, and gradually little additions were made to the furniture of the shanty on the pine shadowed slope, and finally the shanty itself was replaced by a larger and better one.

Not that Cobb and Brundage were becoming wealthy or above the necessity of daily toil. On the contrary, they worked harder than ever, rarely allowing themselves the luxury of a day's hunt. And stimulated out of his old hunting habits by the example set by the junior member of the firm the diminutive "senior" even began to growl at the necessary delays incidental to the preparation of meals.

"Six hours out'n the twenty-four spent a-tryin' slapjacks and sowbells," he would growl angrily. "No wonder we can't get no more ore on the dump! Oh, you can grin!"

"It was only a smile of enjoyment due to this delicious coffee," Brundage would deprecatingly remark. "By the way, Andy, what's the matter with bring us a 'may-thine Chinese' as a grub slinger?"

"Oh, yessee! Me likee beered lads. Him bellee cool grub," sneered Andy, with a happy mimicry of the Celestial sang froid.

"Durn a Chinaman, I say!"

"I tell ye, my son," Cobb placidly remarked one morning as the partners of the "Busted Hopes" sat down to discuss their frugal meal, "this here all-fired way of eternally trottin' around town with burnt grins, greasy breeches an' flour all over my bloom-in' countenance has got to stop. That's what it is! Jest look at ol' Andy right now—pale as paper with butter an' spattered with bacon fat an' bean soup! Ain't I a picture?"

"Get yourself an apron," advised Ed.

"I am!" exclaimed Cobb, with startling decision. "An' apron and a dress; yes, a big 'mother hubbard' that's what! Oh, yes, I'm goin' ter git 'em. An' I'll git me a sun bonnet an' a polyanne an' some buttoned shoes an' a lace collar foot high; an'—yes, by goshem—I'll call me some one to wear 'em, too, lad!"

Having relieved his mind by this little outburst the miner quietly assuaged the ham and eggs, covertly watching his companion meantime.

"Going to hire a lady cook, eh?" inquired Ed carelessly. "Won't you find that an expensive luxury, and besides difficult to secure ore here in the wilds?"

"Too much soda in these biscuits," growled Andy, "an' the eggs are burnt an' the ham cut too thin. That's allus the way when a fool man tries ter cook. Ed, my lad, I'm goin' to commit alimony!"

"What?"

"Yes, I am, sure as—as eggs! You wouldn't think it ter look at me, but I'm jest as good as a married man right now."

Brundage had grown too well acquainted with surprises of all kinds to express any emotion at this. But Cobb noticed with pained interest that his friend refused or neglected to offer the congratulations usually tendered upon such occasions and that there was a troubled look shining in the blue orbs gazing so vacantly out at the open doorway.

Rising under the weak pretense of attending to something upon the hearth, grumpy headed Andy, half remorseful in the midst of his happy anticipations, sidled around the table and of a sudden laid one brawny hand tenderly on his friend's shoulder.

"It was all along of my sickness, ol' boy, an' havin' you here waitin' on me like a baby an' knowin' that it was to go an' I've me alone, all alone, as in," he faltered, and tears shone in his usually laughing eyes.

"Not that I'd ever thought of such a thing if I'd known you'd have keered," he

went on, deprecatingly. "Thinks I, with a dear little woman in the shanty ter keep everything straight, I'll seem more like home ter the lad. Jest think of it, Ed, nothin' ter trouble us when we come in, tired, from the mines. A good meal, an' a long rest on the bench by the door, with the little woman ter knock a tune out'n the guitar for us—she's a stunner for music—an' you know!"

Self reproachful for the fault that had marred his friend's picture of coming happiness, Ed checked further utterance by laying a shapely brown hand across the bearded lips.

"I know that you are, or ought to be, the happiest man in the world," he cried, half bitterly. "Don't mind the selfishness of a crabbed, ill-natured crank, who would allow the mercury of his own sorrow to shadow the happiness of others. Going to be married! Here, a hearty hand shake on that, Andy. That's right! Now, old boy, sit down again, and tell me all about it."

"It's like a leaf out'n a dime novel, ain't it?" responded Andy, with his usual cheerfulness returned. "I know'd her years ago—we went to school together, me an' her—an' when I heard that she was still an ol' maid I jest set down an' writ tew her."

"And she responded?"

"Fast as hoss power an' steam power could bring the letter. 'Ef it was the same ol' Andy,' she said, 'the same ol' friend that she knewed in the past, why,' she said, 'she was more than glad ter hear he was alive.' An' then she mentioned the days when we used ter set on the same seat at school an' crack hazelnuts with our teeth."

Brundage was silent. Another picture of the past was arising in his memory. A last farewell beneath the light of the crescent moon, and a promise for the future—broken, alas, as soon almost as the words were spoken.

"I answered her letter the same day. God knows how I managed ter keep silence all these years, for I knowed then that I had loved Molly Price all my life, an' I must tell her of my love or die. I told her everything," went on the rough faced miner, rendered suddenly eloquent by the power of love. "I told her of how I was down in the world, an' had known poverty an' sufferin'; but that was a chance, only a chance, mind you, that times would be better with me shortly. An' I told her, my lad, of my wrastle with the fever, an' all about Ed Brundage—the best pard a feller ever had—an' how I hoped to stay with you through life, and be buried by your side in death. An' after all that, Ed, my boy, I asked her to come to me, to come out into this wilderness, an' fine hands with me fer life."

"And she is coming?"

Andy Cobb made no reply, but the heartfelt gloe in his honest face spoke louder than mere words.

"Only think," he said at last, "she has liked me all these years an' had looked an' longed for me ter come back! Think of that, Ed. Just like a woman, eh—true to the last!"

Something between a curse and a sob broke from the other's lips.

"Thank the destiny that has linked you with a woman that can claim that as her motto," he gritted bitterly and broke from the shanty, leaving Andy to stare after him with mingled pity and surprise.

The sun was hidden by the western hills before the young man's foot crossed the threshold. Andy Cobb met him with outstretched arms and a countenance perfectly radiant with joy.

"Such news!" he exclaimed eagerly. "Ed, my boy, you'd never guess it in the world!"

"If it's good news it will keep," responded Brundage grimly. "My news must come first. It is easily told."

He leaned against the doorway and glanced sidly around the little kitchen.

"This is our last night at the old place," he half sobbed. "The 'Busted Hopes' is sold and we are homeless."

Cobb staggered as though under a heavy blow; but love and confidence, that nothing could shatter, yet illuminated the face framed in by the unkempt, tawny beard.

"Well, Ed, is that all?"

"Listen! The 'All Wool' and 'Three Pies' have consolidated, and their agents approached me on the subject of selling our claim. He asked me if I had power to act for the firm and if I would name a figure."

"Well, old boy, of course you told him that—"

"I was worried—never mind by what—and his talk angered me. Said I: 'My dear sir, my partner, Mr. Cobb, has entrusted me with full power in the premises. The 'Busted Hopes' is for sale for \$50,000; not a dollar less.'"

Even in his excitement Andy Cobb managed to telegraph a restraining signal to some one—out of sight from Brundage's standpoint—in the little bedroom and parlor.

"Well, my lad!"

Brundage sighed wearily. "There is nothing further. Only the offer was gobbed by a celebrity that showed how badly the property was wanted. It seems they are confident that our old claim is a future bonanza—the richest in the hills. I could have sold for \$75,000 easily if I had not been such a fool. However, it was my offer, and I know you will let it stand."

No need of the implied query. Under no circumstances would Andy Cobb question the wisdom of any of the "lad's" proceedings, and least of all at such a time. Brundage had told his news, and now—what a glorious thought!—the wondrous secret was to be revealed—the magic secret whose potency could even dim the unexpected light of coming wealth and happiness cast athwart the miner's weary life.

"Ed, dear ol' boy," the cheery voice trembled just a little, but it was with repressed joy. "When I spoke this mornin' of my own hopes I didn't know how nearly they were realized."

"You have heard from her?"

"Man alive, I have seen her! Better than that, she didn't come alone!"

Perhaps Brundage paid no heed to the last sentence. A graceful female figure had appeared at the inner door, a kindly featured, blonde lady of middle age, whose years had matured rather than robbed her of her beauty. With an unconscious return to the old gallantry of other days Brundage lifted his hat and acknowledged Andy's blundering introduction. "Molly, dear, this is Ed, you know, the best feller in the world, all ways exceptin' yourself."

"Molly's" reply was heard, but hardly understood, for Brundage had become aware that the grey eyes were not resting upon his face, but cast with tender sympathy at some one beyond, standing behind him in the doorway.

Suddenly the riddle was solved. Two plump arms, muslin clad and circled with golden bands, were slightly twisted about his sunburned neck; a wealth of raven tresses lay upon his breast in marked contrast to the dirty carpet of his flannel shirt; while rich, pouting lips that had once granted him kisses, as an empress might bestow her most precious jewels, now pleaded pitifully for a kind word.

"Ed! darling Ed! I have come so far to find you. Please say that I may stay. Don't drive me away, dear!"

Drive her away! Great heavens! As though a mar, dying with thirst, would dash the proffered goblet to the dust; or a soul on the verge of Paradise voluntarily descend to the lowest pit of Hades! Afterward he found time to laugh at the bare idea of such a contingency; just now there was no time for such thoughts.

"Dearest! loved one, tell me how this can be! How did you find me?" he asked, after mutual explanations had cleared away the last cobweb of doubt in which scheming enemies had hoped to fetter their love.

"All owing to this bright little wife of mine," began Andy, when Brundage suddenly called him to a halt.

"Your wife? You don't mean to say that you have—"

"Yes, I do, though," persisted Cobb. "We called in at Squire Billings an' had the knot tied first thing. But—"

"Hold on again," interrupted Brundage. "I like that idea of yours. Suppose you run down and tell the 'squire to walk up this way a few minutes."

Cobb and his wife exchanged glances.

"The fact is, Ed, my boy," remarked the newly made Benedict at length, "as Molly has engineered this scheme all the way through, bein' a friend to your little girl there, an' buildin' up the hull business on my reference to you in one of my letters, why I jest thought I'd let her go ahead with the affair in her own way. So far we're all satisfied. I'll bet my undivided half interest in the fifty thousand on that. And as Mrs. Cobb has invited 'Squire Billings to call around ter night at early candlelight, I move that the old proprietors of the 'Busted Hopes' celebrate their last night in the shanty by gittin' supper in the ordinary way, with the usual accompaniments of a rag'lar meal, such as fried roaches, an' chunks of mud in the gravy, an'—"

But with a celerity of movement that struck the "pards" as something wonderful, they were unceremoniously hustled out beneath the pines to enjoy with the 'regule pleasure of a lazy smoke, while the new bride and the bride prospective shouldered the responsibilities of the household, and braved without flinching the terrors of the cuisine that caused poor Andy so much misery in the past—Yankee Blade.

Servant Girl Worth Having.

A lady from Kansas, who was visiting a family on Walnut street, West Philadelphia, a week or more ago, told a wonderfully clever story of a woman's wit.

When my husband was a candidate for the State senate we lived on a farm two miles from our nearest neighbor, and four miles from town. One day just as we were sitting down to dinner a wagon drove up containing four of my husband's political friends. They were influential and expected to dine with us. To my horror the Irish maid who lived with us informed me as we had all assembled that there was just bread for our own dinner, and there was no flour in the house for biscuits. Here was a terrible and unusual quandary. Four able-bodied men and bread enough for only two of them. Only a woman with her husband's interests at stake can appreciate my feelings. I called my oldest son out of the room, put him on a horse with a bag over his arm, and told him to ride at a gallop to Mrs. B—'s, our nearest neighbor, and borrow all the bread she had, explaining my predicament. As Bob rode away my servant Mattie said: "Sure man, the bread will be all gone in jest before the lad reaches B—'s. But just leave it till me," she added, with a grin. "Don't worry yer swate sowl about it; we'll have it in time."

I went back to the dining-room with my heart dropped as I saw that only four or five slices of bread were left on the plate, though there was an abundance of meat and vegetables. Suddenly Mattie's head was stuck in the door, and in a voice of consternation, with terror written on her face, she fairly yelled. "Plaze, mam, the shable's on fire!"

In an instant the dining-room was deserted. Our guests sprang to their feet, and, headed by my husband, rushed from the room. Sure enough there were volumes of bluish smoke pouring out of the stable door and through the cracks in the boards. There was a frantic rush for water buckets and the well, and a long chase out to the barn. But somehow Mattie was there first with a bucket of water and had the fire nearly extinguished by the time others arrived. It took fifteen minutes to get order restored, and by that time Bob had arrived with the bread. Mattie had started the fire in an old vinegar barrel with some straw. There was a risky piece of business, I thought, until the sharp-witted girl told me she had dampened the straw so that it would make a heavy smoke, and afterward had covered the barrel with pieces of loose boards thoroughly dampened.

"Arnoul is at Dinner."

In the Southern part of France, in the Department of the Garonne, it is a common saying, when one does not wish to be disturbed by intruders: "Arnoul is at dinner." The custom came about in the following manner:

Henry, Prince of Conde, father of the great Conde (Louis II.), found himself obliged to mortgage his estate of Muret, and, wishing to do it privately, he went, incognito, to an adjacent village, where lived a trustworthy and capable notary named Arnoul. The notary was at dinner, and while he dined, his wife waited in the hall without to answer for him. The woman replied as was her wont:

"Arnoul is at dinner. Sit you down on the bench there. When Arnoul is at dinner, not a soul can speak to him, in faith."

The prince sat down and patiently wait-

ed. When the notary had finished his dinner, and had been informed by his wife that a client was waiting, he directed that the applicant should be admitted. Conde stated his business without giving names, and the notary proceeded to make out the necessary document, leaving blanks for the names of the mortgagee and the estate. When it was finished, he read it, and it was approved.

"And now, sir," said the notary, to whom the visitor was a utter stranger, "shall I fill in your name and designation?"

"If you please."

"Will you give them to me?"

"They are short," answered the client, with a smile. "Pat 'Henry of Bourbon, Prince of Conde, First Prince of the Blood, Lord of Muret.' I suppose the instrument will be stronger if we are thus explicit."

The poor notary was stricken with amazement and terror. Throwing himself on his knees, he begged pardon for the indignity he and his wife had offered through ignorance. The prince raised him up, saying: "Fear nothing, my worthy friend. It is all right. Arnoul sat at dinner, you know."

The story leaked out and spread, and is a provincial proverb to this day.

How the Blind Find Their Way.

"How does the blind man find his way?" repeated a slightest instructor of the blind. "A blind man finds his way just as you would in total darkness, for you must remember he is always in the dark. It is as easy for him to get lost in this room as a forest. He comes in, gets turned around and loses his reckoning. He stops and listens. The twitter of a bird through the open window comes to his ear, and in a flash he is right again. 'There he says,' is the window. The door is over here, and he walks straight to it. Blind people are as timid about venturing into a strange place as you would be about going into an unfamiliar cellar in the dark, but after they have been over the ground once or twice they step with confidence, only exercising ordinary care lest some unusual obstacle should have been placed in the way since they last passed. You see blind men making their way to and fro in the streets of every large city. I live in a place of some thousands of population, and every morning walk a mile to my school and back again in the evening. I know every step of the way, and have my landmarks, which, to me, indicate the stages of the journey. It is thirty steps from my gate to the nearest crossing and gutter. I step over this, then fifteen stepping-stones take me to the next gutter on the other side of the street. Then there is a plank walk, three planks wide, for 311 steps. The walk is about two feet higher than the street, and people often wonder at seeing me step along so soberly; but bless you! I am in no danger. I keep on the middle plank, and can tell by the sound about where I am. I know when I pass a large house which stands some feet back from the walk, and when I get to a tree which shades the street I know I am half way. Then two steps take me down from the walk to the street level, and ten stepping-stones keep my feet out of the mud. Then there is a brick wall for twenty-seven steps and three steps from the end there is a place where the bricks have sunk. Then comes a pavement of flag-stones, and seven steps from its beginning one flag has shifted its place and stands with one end two or three inches out of the ground. I found this out by stumbling over it. Now I know this when I come to it. A little further on there is another plank walk, also three boards wide, and when I set my foot on a springy board I know I am half way over this part of the journey. I use to count the steps, but I know them by heart, and my feet do the counting, so that I step from the plank walk to the stepping-stone and over the gutters without thinking, and have gone from my house to the school without, so far as I remember, giving a thought to my steps. So every blind man who goes to and fro, in city or country, can tell you exactly how far it is, in his steps, from one point in his route to another, and what are his landmarks by the way. He will also be able by his sense of hearing to give you particulars of the surroundings that would surprise you. A stone house gives a different echo from brick and the latter from wood; he can always tell when he is under or near trees, and will name the kind of street pavement, and measures the distance by step; when riding in a carriage, street car or railroad by time. There are watches especially prepared for the blind. The glasses are taken out and little points mark the hours. By touching the faces carefully here and there he will find the time and estimate the distance accordingly. Of course, no blind man likes to go over a new route unattended, but after he has traversed it once he knows every point of importance to him, and could walk over it as you would say 'in the dark.'"

Globe-Democrat.

An Argument in Favor of Advertising That Carried the Day.

Arguing advertising the other day with one of the brightest of Eastern manufacturers I had just commenced to train my skirmish batteries upon him, when, like Davy Crockett's coon, "he came down before I could shoot," says a contributor to the Jewellers' Weekly.

He had more to say in favor of advertising than I had, but I of course gave him up as lost, for as a salesman he recognizes a non-buyer, when the latter praises his goods, so I at once surmised that our Eastern friend was not prepared just then to give an advertisement. But he told a good story which ought to go on record. An advertising agent called upon the head of an old and prominent firm. That gentleman received him politely, but informed him that his house had no occasion whatever for advertising, as it was well known and had done all the advertising that was requisite in its earlier days.

"Indeed?" responded the agent. "So you think that your advertising in earlier days is sufficient to carry you along now?"

"No," was the confident reply.

"Will you kindly tell me the name of the Vice-Presidential candidate on the Republican ticket the election before last?"

The big man scratched his head for a moment, looked abashed, and replied: "Well, no, I can't."

"Do you know of any man who was better advertised at that time?"

The agent left the store with a contract in his pocket.

THE FIRST WEDDING.

An Event That Occurred on the 1st of June in the Year 1.

What a morning that was of the world's first wedding! says Rev. Dr. Talmage, in the Ladies' Home Journal. Sky without a cloud. Atmosphere without a chill. Foliage without a crumpled leaf. Meadows without a thorn. It shall be in church—the great temple of a world, sky-domed, mountain-pillared, sapphire-roofed. The sparkling waters of the Gihon and the Hiddekel will make the fount of the temple. Larks, robins and goldfinches will chant the wedding march. Violet, lily and rose burning incense in the morning sun. Luxuriant vines sweeping their long trails through the forest aisle—upholsterers of a spring morning. Wild beasts standing outside the circle looking on, like family servants from the back door, gazing upon the nuptials; the eagle, king of birds; the locust, king of insects; the lion, king of beasts, waiting. Carpet of grass like emerald for the human pair to walk on. Hum of excitement, as there always is before a ceremony. Grass blades and leaves whispering and the birds a-chaatter, each one to his mate. Hush, all the clouds. Hush, all the birds. Hush, the waters, for the King of the human race advances, and his bride, Perfect man, leading to the altar a perfect woman. God, her father, gives away the bride and she is the witness. Eyes of Edenic happiness are complete, and tears of morning dew stand in the blue eyes of the violets. And Adam takes the round hand that has never been worn with work or stung with pain into his own stout grasp and says: "This is now home of my bone and flesh of my flesh. Tumults of joy break forth and all the trees of the wood clap their hands, and all the galleries of the forest sound with carol and chirp and chant, and the circle of Edenic happiness is complete, and while every quail hath answering quail, and every fish answering fish, and every fowl answering fowl, and every beast of the forest a fit companion, at last man, the immortal, has for mate woman, the immortal."

MARRIED—Wednesday, the 1st day of June, in the year 1, Adam, the first man, to Eve, the first woman, High Heaven officiating.

A STINGING REBUKE.

Discourtesy of a Young Woman to an Old Lady and Its Aftermath.

It was on a street-car bound up town at about the time when the men and women who work in the great downtown hive of business for the better part of the day are hurrying home. Every seat was occupied, when the car stopped and two women boarded it. The first was an elderly woman, somewhat feeble. The second was younger, sturdier and aggressive-looking.

A good-looking man of middle age arose from his seat, and, touching his hat, asked the elderly lady to be seated. Before she could sit down, however, the younger woman pushed her aside and sat down herself. There was no one in the car who did not know that the man who had given up his seat intended it for the older woman, and the action of the younger one astonished everybody for a moment. Then half a dozen seats were vacated and the elderly woman took one.

The man who had first given up his seat raised his hat to the woman who had taken the place not intended for her, and said in a voice that could be heard throughout the car: "Madam, I believe you to be among that class of women who are always complaining of man's lack of courtesy toward women. You will pardon me if I say that you are also one of that class of women who tempt men to be discourteous. Then he calmly proceeded to read his evening paper."

An audible snicker ran through the car, and one woman whispered to another: "Served her right." The woman flushed and looked straight before her, paying no attention. She stood the looks of the other passenger for fully half a dozen blocks. Then she signaled the conductor, and looking neither to the right nor to the left swept out of the car. A New York Mail and Express man who had curiosity enough to also leave the car at the same place and watch her saw her board the next uptown car that came along.

The rebuke had had its effect.

HOW GEORGE RAN AWAY.

He Wanted to Do as He Pleased, But the Scheme Didn't Work.

I am afraid George was naughty, for all the time he kept thinking how nice it would be to do just as he pleased, says a writer in Nursery. Finally he said: "Mamma, I think I'll run away."

"I do not understand you, dear," she answered.

"I don't like to be bothered," he said, "and I want to be like Whittington."

"Very well, you may go if you are not happy in your home," replied the mother. "I will help you get ready. You need not run away." Then she tied some of his clothes in a handkerchief, and put the bundle on a stick over his shoulder, like the picture of Whittington. She kissed him good-bye when she opened the street door for him. George looked pretty solemn as he went down the street, and waved his hand back and rang the bell. Mary let him in and he ran into his mamma's room.

"May I sleep on the back porch to-night?" he asked. His lips trembled a little.

"No, dear. Your papa doesn't like to have tramps on the back porch," she replied.

"Then I can stay in the stable with John?"

"Oh, no! You had better run away at once, a long way off, where you can do as you please."

Poor George was in tears now. "O mamma, mamma!" throwing himself in her arms. "I do love you so, and I don't want to run away. I hate to do as I please. May I come home again to live?"

"Dear little boy! Mamma

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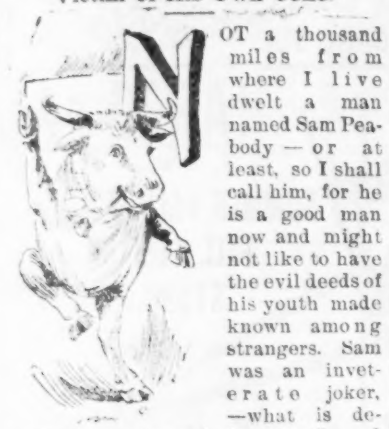
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CURING A JOKER.

How Sam Peabody Became the Victim of His Own Joke.



OT a thousand miles from where I live dwelt a man named Sam Peabody—or at least, so I shall call him, for he is a good man now and might not like to have the evil deeds of his youth made known among strangers. Sam was an inveterate joker, and what is de-

nominated a "practical joker," and though he never meant any real harm, he often caused much mischief by his pranks. On one occasion, when he had gone out at night enveloped in a white sheet to frighten some girls, he started to the roadside and saw a coach and frightened the horse so that the coach was smashed up and one of the occupants severely injured.

Sam had been talked with and argued with, but to no purpose. He could not be made to see the wickedness of his pranks. Sometimes he would fasten lines across the sidewalk, and thus trip up the pedestrians; he would ring flasks up in the night and ask them if they had party of bedding. Once he called the doctor out at midnight to come and attend a man who had very bad fits. The good doctor arose and followed Sam till he came to Adam Snip's little dwelling, and here the joker called up the little boy-legged tailor, and the moment Snip poked his head out at the window Sam cried: "There, doctor, is a man who makes the worst fits you ever saw," and with this he ran away and the doctor and the tailor to settle the matter. This was serious business in the sense, but it set the whole town in a laugh, and Sam was delighted.

But Sam's last practical joke was near at hand. At the edge of the village lived a man named Jerry Smith. He was a stone worker by trade, and as strong as an ox. One evening Jerry's wife had been to see a neighbor, and in returning she had to pass over a place where the road was built along upon a sort of morass, with willow trees upon each side. When she entered her house she was pale and trembling, and sank into a chair almost out of breath.

"What's the matter?" asked her husband.

"I've been frightened," gasped the woman, as soon as she could command her speech.

"By whom? Where?"

"Out by the willow trees. An ox, with great horns and fiery eyes, came out at us, walking on his hind legs."

"By thunder, it's Sam Peabody!" exclaimed Jerry. "He killed an ox this morning."

"I knew it was Sam as soon as I had time to think," returned the wife, "for his voice was plain; but I was so frightened at first that I liked to have fainted."

Jerry was angry. It did not suit his fancy to see a defenseless woman thus treated. He took his hat at once and went over to a small house on the opposite side of the street, where lived his partner in business, another stout, iron-worried man named George Tyler.

"Look here, Tyler," cried Jerry, "Sam Peabody is out in the willows, rigged up in his oxskin, frightening poor women. Come with me and we'll punish him."

Tyler hesitated not a moment, but taking his hat he followed Jerry over to the other house. In the first place Jerry took a fire-board, and with some marking paint he painted out a flaming placard, with letters large and distinct. Then he got some of his wife's dresses, and made Tyler put one of them on.

"Per," said he, "if he sees two men coming, he may run."

The dresses were thrown on after a fashion, and planned to the other clothing, and then the men donned each one a bonnet. They then procured a lot of stout cord, and taking the fire-board, they sallied forth. As they approached the willows, they began to giggle and utter in squeaking tones, and ere long the fearful nondescript made its ap-

pearance. With a low, deep bellowing it walked into the road and stood directly in front of the two pedestrians.

"Oo-oo-oo-oo!" bellowed Sam.

"Mercy!" screamed Jerry.

"Ah-oo-oo-oo!"

"Save me!" squeaked Tyler.

The ox-hide approached another step, and Jerry leaped forward and seized it, and on the next moment Tyler was by his side.

"Now, Mr. Peabody, I reckon you're safe," uttered Jerry, giving him a grip like a vise.

"Don't—don't!" cried Sam.

"Don't what?"

"Don't hurt me!"

"We won't hurt you if you keep quiet, but if you make any resistance, you'll run the risk of getting your head broken."

Sam knew that it was Jerry Smith's wife whom he had frightened, and he knew that Jerry could handle him as a child. He begged and prayed, but to no purpose. The two stone-cutters backed up against one of the willows, and then proceeded to bind him to the trunk of a tree. They lashed his hands behind him, then lashed his ankles together, and then they bound him to the feet, and they did it securely, too. After this they took the fire-board and placed it against the tree above his head, securing it by nails which they had brought for that purpose.

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The Dairy.

BRIE CHEESE.

Process of its Manufacture.

[From our Paris Correspondent.]

It is said that some American dairymen have come over to France to study the preparation of the popular Parisian cheese, Brie, and the type of all the numerous soft cheeses prepared in France. It is made in ten departments on the east of the capital. It is an excellent cheese when well prepared, and to do this, as it should be, no rules can be laid down. It seems to come by nature, as Doherty held that reading and writing did. Even the manipulators of the cheese themselves cannot explain the how, the why and the wherefore of the process of the special flavor, and it may be added, the orthodox constant exacted.

Brie cheese is prepared from cow's milk; it resembles a large griddle cake, in diameter, 16 inches, and thickness one good inch, it weighs 6½ lbs. The milk must be good; that which implies good alimentation, as the latter has an important influence on the flavor or "bouquet." The rennet is added when the milk has a temperature of 56 degrees F., but in nearly all cases the desired temperature is secured by cooling the milk just taken from the cow with some earlier milk, previously skimmed. The quantity of rennet should be so regulated that the milk will slowly curd in 60 or 75 minutes. The curd is placed unbroken in tin moulds of the cake sizes, four inches deep, and allowed to drain over stands of open clover work. When the curd has shrunk one-half, a quantity of curd equal to the first is superadded and with the same precautions. This layer upon layer explains why the cheese can be opened into two parts, or leaves, like a hot cake. In 34 or 36 hours at most, both layers will have well shrunk. The curd is next put in another tin mould, over which is placed a cover, with several screws, and an exit for the whey drainings, the screws are gently tightened as the curd becomes more consistent, and salt is moderately sprinkled on each side. The curd is then carried to the cellar to dry, and most carefully watched; the temperature of the cellar ought to be 54 to 57 degrees F., in any case three to four degrees lower than the temperature of the dairy.

Brie of good quality will present a reddish color, and will be neither puffed nor wrinkled; when of a blue color the cheese is less esteemed. Between five to six weeks from the commencement of its making, the cheese will be ripe. Brie is never sold till ripe, but the middlemen keep them in their cellars sometime, following market prices. The cheese sells from 30 to 70 frs. per dozen, following season. At the latter quotation there is not much profit. It is the fermentation that is the most delicate part of the whole process; the oiler strainers are never washed, and it is the must on these that induces the peculiar fermentation. Pasteur is said to be studying this parasitic fermentation of the preparation. If the cheese be badly made the strainers must be well washed in boiling water or renewed. On an average 112 lbs. of milk produces 17 lbs. of Brie. Only long practice can make good Brie, and America has been shrewd in sending over the girls "to study" till they know all about the secrets.

The Cheese Market Abroad.

The London Grocer publishes the following regarding the cheese market: "The assortment of English cheese but slowly improves, as old qualities are nearly all cleared out, and the new season's make is not only backward, but hardly ripe enough for immediate use, through the prolonged absence of hot sunny weather this year, and only limited quantities find purchasers at about the relative value, viz. fine old cheddar at 70s to 74s, new at 66s, medium at 50s to 60s, and common at 40s to 50s, with factory cheese in cheddar shapes at 30s to 34s, and very low sorts at 24s to 28s. No new Cheshire is on offer yet, but double Gloucester sells steadily at 50s to 60s for finest, with useful makes at 50s to 54s, and ordinary fine Wiltshire loaf at 50s to 56s. The best Derby cheese moves off at 50s to 54s, and factory ditto from 46s to 52s per cwt. Of American cheese, immense arrivals have taken place within the last week or two, both into London and the outports, amounting in all to about 350,000 boxes, and a large proportion of the supplies having been pushed forward faster than the wholesale trade has been able to absorb them, the demand has again lagged, so that sales have mostly been rather difficult to effect at the late decline. Towards the close, however, the advice to hand from the 'other side' have been more favorable to holders here, quoting 40s to 41s for fine qualities in New York, and in Canada 43s to 43s, c. f. and l., delivered; and on the strength of this information, consignees have been trying to get better bids. Cheapest Canadian has been taken at 44s; St. Lawrence, 42s to 44s; good at 38s to 40s, and medium at 32s to 35s. There has also been a liberal supply of Dutch cheese far exceeding the capacity of the demand at the moment, and the value has been with difficulty sustained, choice Edams being sold at 50s to 55s. Goudas at 46s to 50s, and Derby ditto at 50s to 55s. New Zealand cheese has been in request, and fair prices have been paid, ranging from 28s to 30s for ordinary and middling, up to 40s and 45s for good to fine."

Good Salt a Necessity.

The fact that there is salt and salt is an important one to the butter-maker. The carelessness in the selection of salt is often great and irreparable. It should be a very perfect article of salt that goes into butter. If it contains anything that will not dissolve perfectly, it injures the butter greatly. Much of the salt that is used in our households is unfit to be used even for ordinary purposes, to say nothing about using it for salting butter. There is salt prepared expressly for dairy purposes, and that is the kind of salt that should be used by the butter-maker. If the country storekeeper does not keep good salt, send elsewhere for your salt. An otherwise good article of butter may be spoiled by bad salting. A simple method of testing the quality of salt is to dissolve a spoonful in a tumbler of

water. If the water becomes white or milky, the salt contains lime, and should not be used for either butter or cheese. If particles of it will not dissolve, it should be discarded also. Good salt should dissolve entirely in water, and at the same time leave it as clear as before the salt was put into it. If the salt you are using does not suit you, try that manufactured by the Diamond Crystal Salt Co., of St. Clair, which we have seen repeatedly tested, and with most satisfactory results. The process under which it is manufactured eliminates every trace of lime or mineral substance, and peculiarly adapts it for use in the dairy.

THE French Government is about following in the wake of that of Belgium, by establishing ambulatory dairy schools, which have so much benefited dairy industry. At same time France will send girls to Holland and Denmark to study dairy matters there.

THERE has been heavy mortality of late among calves in the southwest of France. On investigation, the cause has resulted from the calves drinking their milk too rapidly, producing indigestion and inflammation of the digestive organs. Fingers ought to be placed in the animal's mouth to aid it to drink slowly.

A CANADIAN journal publishes the following: "Several patrons of cheese factories in the Belleville district, who were lately summoned for watering their milk, have avoided publicity by privately confessing before a magistrate and paying the penalty. Some dozen or more others will also be prosecuted for the same offense."

OVER 60,000 lbs. of cheese were shipped from Crowell, Sanilac Co., last week, to Liverpool direct. The price paid is reported at 7½c, which shows that the quality must have been good. Generally the cheese from that county is purchased by Canadian dealers and shipped as a Canadian product—the English dealer being willing to pay more for the article if it is labeled "Canadian." But as the Michigan cheese-makers get a better price for their product in this way they would be foolish to find fault. It only goes to show how prejudice will overcome good judgment even among the shrewdest of business men.

The Commission Man's Song.

Tell me not in mournful numbers, cattle trading's full of gloom; for the man's a chump who says so, and he cannot die too soon. There's a steer, there's a heifer, and the grave is but their goal; dust they are, and "dust" returneth when the salesman gets his "oil." But enjoyment and not sorrow be our destined end or way; if you have no cattle, borrow—buy a yearling steer each day! Lives of cattle remind us we can win immortal fame; let us leave the cranks behind us and we'll get there all the same. In the world's broad field of battle, in the packing house's gore, let us make the dry bones rattle, let us make the old chumps sore. Let us then be up and doing, buy a heart of any weight; then a chieving and a chieving, 'chieving little, chieving late—Stock Grower.

50.00 to Niagara Falls—86.00 to Toronto.

Grand personally conducted excursion via C. H. & D. and Grand Trunk Rys., August 21, 1890. Our record is the best, and this year we will eclipse all former efforts, in the assurance of comfort and care to our patrons.

Five thoroughly posted and competent agents will accompany this excursion and remain as an escort to the party during their stay at Niagara Falls, and arrange accommodations for the side trips to Toronto or Thousand Islands; to the latter point a rate of \$10.00 for the round trip is offered.

Make application early for sleeping car accommodations and tickets, on sale at Chamber of Commerce Building, 300 West Fourth Street; 401 Vine Street, or depot, Cincinnati; Union Ticket Office, Covington, Ky.; or any agent of the C. H. & D. R. R. or immediate connecting lines.

E. O. McCORMICK,
General Passenger and Ticket Agent.

Veterinary Department.

Mrs. Tangle—Women are more honest than men. You wouldn't hear of a doctor's charges if all bank officials were women. Mr. Tangle—H-m-well, women might not succeed as cashiers, but they would certainly be great as tellers.

Grease Heels—Hereditary.

WHITTAKER, AUG. 9th, 1890.

Will you please give through the FARMER a remedy for scratches, or grease heel. My mare has them badly above and below the fetlock joints. It is probable that she inherits the disease as her dam has usually had the same trouble, but not so bad. They sometimes heel up but break out again. Just now they are open sores. Would it be better not to work her? SUBSCRIBER.

Answer.—The disease in your mare is evidently hereditary in character, hence more difficult of cure; constitutional as well as local treatment is called for, together with good care and nursing. Treatment—Give the following: Scurfing aloes, pulv., one ounce; Jamaica ginger root, pulv., one ounce; mix and divide into twelve powders; give one powder night and morning in the feed, or mix with water to a paste and smear on the tongue, using a wooden paddle for the purpose. If a spoon is used the bowl will hold the mass. When the medicine is all given, and the bowels are not in a healthy condition, the powders may be renewed. Directions: Give good clean oats and hay to eat, but give no corn, corn meal, rye grass or any food of too stimulating a character. The animal should not be worked.

When the bowels are in a normal condition, the following may be given with good results. Nux vomica, pulv., one ounce; lin-farina, two ounces; mix and divide into sixteen powders. Give one at night, until all are used; discontinue for two weeks and renew, giving the powders as before. The heels and fetlock joints should be carefully washed with castile soap and water; then apply the following: Colodion, two ounces; oil ricin, one pint; mix well together and shake before using; apply with a clean soft piece of sponge, once or twice a day. As this case is of congenital origin, it will be of no interest to all stock owners. Follow this case up to a finish, the owner keeping us

posted as the treatment is applied, if proving beneficial or otherwise. We will from time to time advise any change in the treatment that may be necessary.

Tape Worm in Lambs.

MARLETTE, Aug. 9th, 1890.

I found two of my lambs dead this morning; they appeared all right last night when put in the yard; on opening them I found the small intestines had tape worms in them. Last year I lost five lambs in the same way. Now what will I give to my sheep to kill the worms? Please give a remedy in the FARMER and oblige.

W. A. RUDD.

Answer.—Pumpkin-seed tea is to-day the most successful remedy for tape worm in man known to the medical profession. We believe it will act equally well in our inferior animals. Try it and report us your success or failure, and we will publish it for the general good.

Simple Ophthalmia in a Calf.

SAND LAKE, Aug. 5th, 1890.

Will you please tell me what is the matter with a calf, five months old, who has always been healthy until a few days ago, when she became blind. She wanders around most of the time; will eat and drink a little, but doesn't care anything about it. It sweats on the nose natural as any calf; it seems to act as though the heat affected it in the middle of the day. Answer through the FARMER and oblige.

A. SUBSCRIBER.

Answer.—The trouble with the eyes of your calf is probably simple ophthalmia. Give internally, four ounces sulphate of magnesia; half an ounce Jamaica ginger root, dissolved in half a pint of pure water. Give one-half at night, the balance in the morning, and keep the calf out of the sun.

Commercial.

DETROIT WHOLESALE MARKET.

DETROIT, August 16, 1890.

WHEAT.—There has been an advance on all grades. Market firm in sympathy with wheat. Quotations on car lots are as follows:

Michigan, red cross	4 75	64 45
Michigan, white	4 75	64 45
Minnesota, white	4 75	64 45
Minnesota, white	4 75	64 45
Rye	3 50	63 50
Low grades	3 00	63 00

WHEAT.—Higher on both spot and futures than a week ago, and the outlook promising for holders. Chicago, New York and St. Louis all closed higher yesterday. Quotations at the close yesterday were as follows: No. 1 white, 90c; No. 2 white, 89c; No. 3 white, 88c; No. 2 red, 89c; No. 3 red, 88c. Closing prices on futures were as follows: No. 2 red, August, 90c; September, 89c; December, 87c.

CORN.—None on sale. Offers of 50c for spot No. 2, and 51c for No. 3 did not bring out any responses. Futures were also nominal.

OATS.—Market lower. Quotations are as follows: No. 2 white, 35c; No. 2 mixed, 34c; light mixed, 33c; and No. 3, 32c per bushel. BARLEY.—Market dull. Selling at a range of 30c to 31c per bushel for fair to choice samples. There were no receipts the past week; shipments were 34 bush.

RYE.—Quoted at 60c per bushel for No. 2. FEED.—Wheat bran quoted at 13c per ton; middlings, 12c to 13c per ton.

BUTTER.—Quotations are as follows: Choice, 14c; No. 1, 13c; No. 2, 12c; No. 3, 11c; No. 4, 10c; No. 5, 9c; No. 6, 8c; No. 7, 7c; No. 8, 6c; No. 9, 5c; No. 10, 4c; No. 11, 3c; No. 12, 2c; No. 13, 1c; No. 14, 0c; No. 15, 0c; No. 16, 0c; No. 17, 0c; No. 18, 0c; No. 19, 0c; No. 20, 0c; No. 21, 0c; No. 22, 0c; No. 23, 0c; No. 24, 0c; No. 25, 0c; No. 26, 0c; No. 27, 0c; No. 28, 0c; No. 29, 0c; No. 30, 0c; No. 31, 0c; No. 32, 0c; No. 33, 0c; No. 34, 0c; No. 35, 0c; No. 36, 0c; No. 37, 0c; No. 38, 0c; No. 39, 0c; No. 40, 0c; No. 41, 0c; No. 42, 0c; No. 43, 0c; No. 44, 0c; No. 45, 0c; No. 46, 0c; No. 47, 0c; No. 48, 0c; No. 49, 0c; No. 50, 0c; No. 51, 0c; No. 52, 0c; No. 53, 0c; No. 54, 0c; No. 55, 0c; No. 56, 0c; No. 57, 0c; No. 58, 0c; No. 59, 0c; No. 60, 0c; No. 61, 0c; No. 62, 0c; No. 63, 0c; No. 64, 0c; No. 65, 0c; No. 66, 0c; No. 67, 0c; No. 68, 0c; No. 69, 0c; No. 70, 0c; No. 71, 0c; No. 72, 0c; No. 73, 0c; No. 74, 0c; No. 75, 0c; No. 76, 0c; No. 77, 0c; No. 78, 0c; No. 79, 0c; No. 80, 0c; 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